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(71) Applicant: Control Products Inc.
East Hanover, NJ 07936 (US)

(72) Inventor: Glasson, Richard O.
Whippany New Jersey 07981 (US)

(74) Representative: Arends, William Gerrit et al
Lloyd Wise
Commonwealth House
1-19 New Oxford Street
London WC1A 1LW (GB)

(54) Precision sensor for a hydraulic cylinder

(57) A sensor (218) mountable within a hydraulic cylinder (200) provides a precision signal indicative of the position of the piston (212) utilizing a non-contacting electromechanical transducer. The sensor includes a flexible connector (216) attached between the cylinder piston and a converting element (220) for sensing the displacement of the cylinder piston. The converting element comprises a pick-up spool (310) coupled to the

other end of the connector and rotatable about an axis. The spool is under tension from a spring (317) coupled to the spool. A lead screw (324) engages threads on the interior of the spool, and translates along an axis when the spool rotates. A transducer (323) is disposed to sense the position of the lead screw, and provides an output signal proportional to the motion or position of the movable element. The transducer may be an LVDT or other non-contacting transducer.

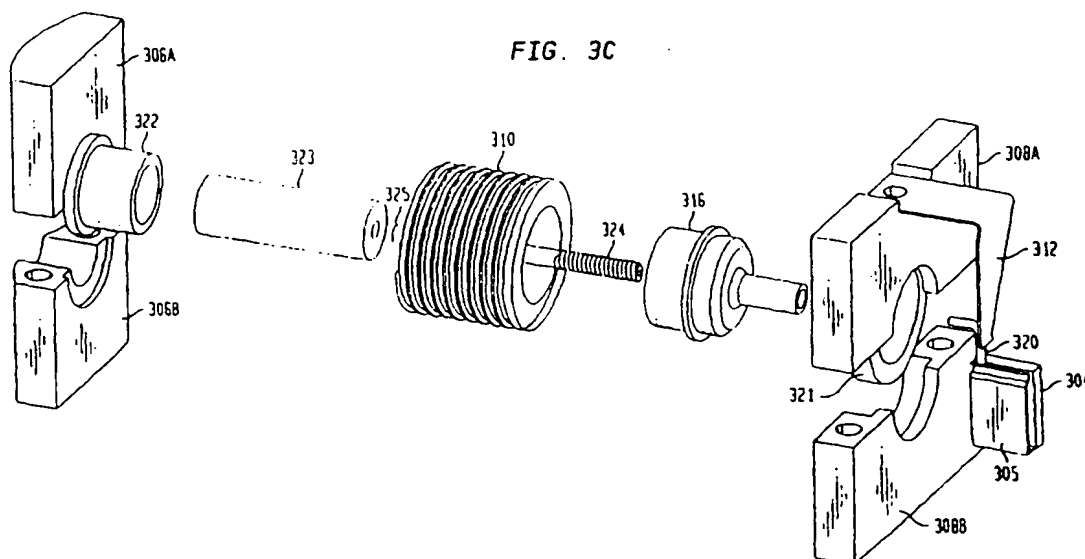


FIG. 3C

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EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		23 September 2004	SLEIGHTHOLME, G
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X particularly relevant if taken alone Y particularly relevant if combined with another document of the same category A technological background O non-written disclosure P intermediate document</p> <p>1 theory or principle underlying the invention E earlier patent document, but published on or after the filing date D document cited in the application C document cited for other reasons & member of the same patent family corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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